BRIEF COMMUNICATION

Opioid epidemics during the pandemic: Further insights to the same story

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ABSTRACT

The limited access to opioids remains a reality in developing countries. Recent evidence suggests that opioid epidemics are getting worse with the COVID-19 crisis. The increase in opioid abuse could be attributed to the extended lockdowns and the social distancing recommendations, hindering chronic pain patients' access to regular office visits and monitoring in addition to limited access to behavioral services like group therapies and other pain management interventions. Use of telemedicine as an alternative to in-person follow-up visits has faced many limitations due to technological challenges and cost.

Chronic pain patients living in developing countries face extra burden during the pandemic. Limited access to outpatient clinics and hesitance to visit hospitals due to COVID-19 pandemic, in addition to reduction in supply of opioids, are some of the limiting factors. Unfortunately, the low-income class with limited financial capabilities faces further barriers to access the chronic pain services and treatments like opioid prescriptions.

Medical entities involved in care of chronic pain patients have adopted different strategies to overcome these challenges. In addition to expanding on educational programs to medical staff and patients, modifying the strict opioid prescribing and dispensing regulations has been successful. Another positive trend has been the growing use of opioid sparing interventions, such as multimodal analgesia, regional blocks, and interventional pain procedures.

Opioid epidemic in the United States has partially occurred due to abundance of supplies and liberal prescribing habits. In contrast to the situation in developing countries where shortage of supplies continues to impact those in need of better pain relief, this fact was best described in an article published by the Newsweek in October 2017 entitled "US opioid Epidemic: While America Pops Pills, Developing Countries Suffer in Pain."

Seventeen high-income countries utilized approximately 94 percent of the global morphine equivalence in the year 2011, while the remaining 83 middle- and low-income countries utilized only 6 percent of the morphine equivalence.[1] In fact, over 150 countries do not have any access to morphine at all.[1] Although structured palliative care services are readily available in the more developed western countries, palliative care services are few and far causing millions of people to live in agony with severe cancer and noncancer pain in most of the low-income countries. Only about 6 percent of all the structured palliative care services are located in Asia and Africa, where the majority of the world's population does live.[2] Recent data are speculating the worsening of this discrepancy.[3,4] Knaul et al.,[4] in a groundbreaking 2017 *Lancet* publication on this topic, stated that "the disparity in access to palliative pain control across the world is one of the greatest, most ubiquitous, and at the same time most remediable inequities I've ever seen in any area of public health or social development." One can only imagine this discrepancy being exacerbated following the COVID-19 pandemic.

WHAT ARE THE UPDATES IN THE COVID-19 ERA?

Amidst the COVID-19 crisis, *Washington Post*, in early July 2020, published an interesting article entitled "Cries for help: Drug overdoses are soaring during the corona virus pandemic." In this article, they stated that based on their real tracking, opioid drug overdoses not only increased since the start of the pandemic but did so at an accelerating speed. They reported that the definitive numbers are not yet available and might need few more months to collect.[5] Moreover, *The York Dispatch* confirmed that suspected opioid deaths in the York County have tripled in numbers from January to March 2020.[6] *The American Journal of Managed Care* in July 2020, in an article by Silva and Kelly,[7] also ascertained that opioid epidemics are getting worse with the COVID-19 crisis.

The possible explanations for the increase in opioid abuse and number of deaths due to drug overdose could be attributed to the extended lockdowns and the social distancing recommendations, hindering chronic pain patients' access to regular office visits and monitoring in addition to limited access to behavioral services, such as group therapies and other pain management interventions. Use of telemedicine as an alternative to in-person follow-up visits has faced many limitations due to technological challenges and cost.[5-7]

In contrast to western countries, patients in developing countries who have already been deprived of their basic needs in pain management are suffering even further. Based on our primary audits from Cairo University hospitals, the average pain clinics' outpatient visits all over Cairo University hospitals (nine tertiary care hospitals) from March to June 2020 were reduced to overall 20 percent compared with the average in 2019. The only exception was the pain clinic of the National Cancer Institute (NCI) that maintained the flow to 68 percent of the average in 2019. In order to avoid frequent clinic visits and risk of exposure to COVID-19, a temporary policy was implemented that allowed dispensing opioid prescriptions for 2 months as compared with 3 weeks (as per the old policy).

While in-person pain clinic visits were reduced to less than a quarter of the average in 2019, pain management interventions were limited only to the acute, emergency, and cancer pain management. This was based on the American Society of Regional Anesthesia and Pain Medicine recommendations for chronic pain management intervention during the pandemic.[8]

Our observations in Egypt confirmed that fear of infection with COVID-19 forced chronic pain patients to refrain from visiting the hospitals. Some of the hospitals have been transformed into isolation hospitals, and therefore, the pain patients were forced to travel to farther medical facilities in order to have access to opioid prescriptions. Additionally, the country faced supply shortages of the imported opioids due to interruption of supply chain and travel bans. Patients with limited financial capabilities and those who live in rural areas (far away from hospitals) were the most disadvantaged, especially those with limited resources to communicate via telemedicine. This group of patients relied mostly on direct phone calls with physicians, but this was of limited value. The only exception would be in the case of smart phones with good camera quality, facilitating the needed communication with the healthcare providers. Despite the willingness of physicians to answer urgent consultations by phone, the justification for opioid prescription could not be always established. Developing countries are lacking web-based systems, such as CHOIR system of the United States or the PAIN OUT system in Europe,[6] that allow clinicians to review the medical records before the patient appointments. Furthermore, anesthesiologists who usually staff the pain clinics were mostly recruited to cover the ICU and isolation units. This shortage exaggerated the original deficiency in the number of physicians in the specialty of pain management.

It is well accepted that the most common causes of opioid under-utilization in developing countries include the regulatory issues, the stereotyping and stigmas in the society, lack of education, and economic obstacles.[9]

In general, when it comes to opioid use, most countries feel obligated to follow the international regulations and are free to add more local regulatory rules for controlled substances to restrict manufacturing, distribution, prescribing, and dispensing opioids. Some countries have more restrictive regulations like Armenia, where opioid prescription and dispensing is legalized only for cancer patients. A panel of five specialists must examine the patient at home to approve morphine prescriptions, and each prescription requires four stamps and three signatures. The patient or a relative must travel to one of the few clinics authorized to dispense morphine, and

that is for only a small amount of injectable morphine (not oral!).[10] Obviously, during COVID-19 pandemic, these limitations would have been exaggerated.

Multiple factors contribute to under-utilization of opioid in developing countries, including opioid phobia, lack of knowledge and education about opioids among healthcare providers, and rising concerns based on the opioid epidemics plaguing the United States. Opposing streams against improving the opioid dispatching policies in developing countries found the opioid epidemics as an easy justification to resist the development in this area.[11] Hence, the COVID-19 era might have actually worsened the original inequities.

WHAT ARE THE POSSIBLE FUTURE SCENARIOS?

There are many examples of actions taken by different developing and middle-income countries trying to improve opioid prescription and dispensing.

Changing regulations for opioid dispensing have been adopted by some countries such as India, Mexico, and other Eastern European countries.[10] The COVID-19 crisis mandates exceptional and balanced regulations to facilitate the opioid dispensing without violating any opioid protocols, as in the case of the NCI in Egypt. In some Middle Eastern countries, guidelines for acute pain management were modified to include the phrase: "if the patient is having severe pain refer to a pain management specialist."[12] Some excessive regulatory burdens were also removed to facilitate referring patients in severe pain to the facilities or physicians with remote authority for opioid dispensing. Accordingly, our preliminary feedback and evaluation audits showed some improvements in patient outcomes. Under these guidelines, audits of the year 2012 compared with 2008 showed a percentage of patients suffering from severe pain after surgery with pain score more than seven out of 10 dropped from 4.6 to 0.5 percent, and a percentage of patient satisfaction increased by 13 percent.[13]

Additionally, the choice of opioid was optimized based on established research and evidence. The use of agonist/antagonist opioids became more widely accepted based on being less addictive, less restricted, and a better safety profile.

Other efforts implemented were educating medical staff and patients, including pain management and palliative care in undergraduate medical and nursing curricula like in the Vietnam's experience.[1] Moving toward virtual or blended learning became "the new norm" during COVID-19 crisis, which also served the needs for pain management education. Some webinars from India, Middle East, and Far East were attended by over 1,000 clinicians from over 27 countries. Data about the efficacy and impact of such modalities are still being studied. However, interestingly enough, in spite of limited number of those practicing in the field of interventional pain medicine, the percentages of attendance and participation seem promising, especially for physicians from developing countries, who had more equitable chances to learn the latest advances in the field.

Finally, in view of the rising concerns of opioid epidemics, it is suggested to promote the use of opioid sparing interventions, namely, multimodal analgesia, regional blocks, and chronic pain interventions. This is particularly needed in the less-developed countries in order to compensate for the lack of availability and dispensing of opioids.[14] Regional anesthesia techniques have the additional benefit of decreasing the risk of COVID-19 spread to healthcare providers by avoiding the aerosol-generating procedures that might occur during general anesthesia. Although education and training for regional interventions in low- and middle-income countries are significantly limited, we hope that the era of virtual learning might help in overcoming these barriers.[15,16] Successful stories are being reported.[16] However, support from various organizations including the WHO is still needed.

The aim here is "the correction" and not the "suppression" of a problem that many developed countries also faced at a point in time in the development of their pain management systems. May be the COVID-19 came to unmask the neglected roots of the problem or give us further insights to the same old story of "painful shouts for help" with a new magnifying lens.

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